COMMENTS ON THE NOTICE OF PREPARATION FOR A PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT ON REVISED CUPs FOR WIND TURBINES IN THE ALAMEDA COUNTY PORTION OF THE ALTAMONT PASS

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The Alameda County Scientific Review Committee (SRC) appreciates the opportunity to comment on the Notice of Preparation (NOP). Our comments follow.

CEQA REVIEW PROCESS

The SRC is concerned that the proposed environmental review process is too confusing. There are two major points of confusion: (1) The Combining of existing CUPs and the two repowering projects into a single 'project' for purposes of CEQA review; and (2) the combining of the review processes between the Programmatic Environmental Impact Review (PEIR) and a future EIR/EIS (Environmental Impact Statement) for a proposed Natural Communities Conservation Program/Habitat Conservation Plan (NCCP/HCP). Contributing to the first point of confusion, the analysis of existing projects is limited to operations of existing wind turbines while the analysis of the repowering projects includes the removal of existing wind turbines and the siting of entirely new wind turbines. Analyzing impacts cumulatively will potentially deemphasize the effects of the existing projects due to the benefits derived from repowering. Analyzing impacts on a project by project basis would be more appropriate, but also more appropriately lends itself to separate EIRs (repowering EIR and Existing CUP EIR). Contributing to the second point of confusion, the NOP indicates that the PEIR will be integrated into the EIR/EIS to be prepared for the NCCP/HCP, but the SRC lacks information about the mitigation measures under consideration for the NCCP/HCP.

The NOP's announcement that the PEIR will be integrated with the EIR/EIS for the NCCP/HCP left the SRC with many concerns, including the following. It is unclear whether the permit periods would be consistent between the two planning processes, or whether the permit period following the PEIR would be later modified to match the permit period of the NCCP/HCP. It is unclear whether the list of wildlife species considered in the impact assessments of the PEIR would be the same as the list in the NCCP/HCP. It is unclear whether the thresholds of significance would be the same, especially considering the recovery standard required of NCCPs. It is also unclear to what extent the CUPs following the PEIR certification would be revised by the EIR/EIS for the NCCP/HCP. The SRC sees little sense in the County's preparation of an EIR that will be rendered obsolete by another EIR/EIS, especially one that is directed to the same environmental impacts and involving the same limited suite of mitigation options.

The SRC recommends that Alameda County change the sequence of environmental planning and review steps announced in the NOP, so that there is no integration of environmental review documents at an unspecified, later date. Alameda County should either eliminate plans to prepare an NCCP/HCP or it should roll the plans together at the outset. The history of the

APWRA harbors a series of complicated mitigation agreements that proved ineffective at reducing avian and bat fatalities.[1] Given this history, and given the magnitude of the ongoing environmental impacts, the environmental review at hand should be simple and comprehensible.

Furthermore, the way it is worded, the NOP might give a misleading impression that another mitigation strategy prepared for the NCCP/HCP would be superior to the strategy directed toward the PEIR. The available suite of mitigation measures have been reviewed by the Alameda County Scientific Review Committee (SRC) for four years. The SRC members are experienced with fatality monitoring and research in the APWRA. The SRC does not expect another conservation strategy will be developed that will be more effective.

The SRC feels that the NOP would have been more informative had it identified the probable environmental effects and issues. The SRC feels that more description of the project would have been helpful, including the following:

- A table of the number of new turbines likely to be used in repowering projects and the number of old turbines to be removed;

- It should be clarified whether the repowering projects would occur within the same project boundaries as the existing old-generation turbines, or whether there are plans for project area expansions;

- The siting of new turbines should rely on the SRC's siting guidelines;[2]

- It should be clarified whether landowners have a say in whether existing roads are removed, and whether land-owner considerations fit into land use planning;

- APWRA's neighboring landowners should have adequate opportunity to raise to have their concerns and issues addressed in the review process;

- Audubon Society and Californians for Renewable Energy (CARE) should share in any oversight role(s);

- The PEIR should include a complete list of the original and amended CUPs dating back to 2005, so that there is no confusion among members of the public about the origins and relevancies of the CUPs; and,

- It should be clarified whether repowering projects not mentioned in the NOP, i.e., additional to Summit Wind and NextEra, could be developed within the permit period

[1] Smallwood, K. S. 2008. Wind power company compliance with mitigation plans in the Altamont Pass Wind Resource Area. Environmental & Energy Law Policy Journal 2(2):229-285.

[2] Alameda County SRC (Smallwood, K. S., S. Orloff, J. Estep, J. Burger, and J. Yee). 2010. Guidelines for siting wind turbines recommended for relocation to minimize potential collision-related mortality of four focal raptor species in the Altamont Pass Wind Resource Area. Alameda County SRC document P-70. P70 SRC Hazardous Turbine Relocation Guidelines

following the PEIR. If other projects are allowed, then evaluating impacts separately or site-wide for unforeseen future projects is going to be difficult. But if no other projects can be considered, then this will situation will hinder the progress of repowering.

Finally, the SRC notes that its effective comment period on the NOP was too short. By the time the SRC was able to meet on this issue, only days remained before the end of the comment period. The SRC feels that it was unable to sufficiently review the NOP and needed more time to prepare meaningful comments.

PROJECT ALTERNATIVES

The SRC is unclear how the PEIR in general and particularly the Alternatives Analysis will be presented, given that there are two vastly different elements to the 'project,' i.e., existing operations at old projects and repowering projects. This said, the SRC suggests the following alternatives be considered in the Programmatic Environmental Impact Report (PEIR):

(1) No project – shutdown of all turbines and no repowering;

(2) No change to turbine models and turbine operations;

(3) Complete repowering to modern wind turbines with careful siting to minimize environmental impacts;

a. Relocated project -- removal of existing turbines, but repowering in another geographic area within or outside of the APWRA with less mortality potential;
b. Reduced operations (seasonal shutdowns);

(4) Partial repowering and partial continued operations of old turbines, where for the old turbines the following additional alternatives should be considered:

a. Partial decommissioning of turbines;
b. Seasonal shutdown;
c. Removal of all turbines rated 7 or higher by the SRC;
d. Removal of unproductive turbines and vacant towers;

(5) Reduced project -- fewer removals of old turbines and fewer new turbines, or removal of all existing turbines within the repowered area, but fewer new turbines.

The SRC is concerned that there may not be a reasonable way to combine these elements in order to conduct an alternatives analysis for the entire project (existing and repowering elements).

IMPACTS ANALYSIS

Turbine configurations and conditions will change with repowering, attrition, and removals. The SRC is concerned about how the impacts will be assessed with these ongoing changes, which will continue to alter the impact levels. It's like evaluating a moving target. Reassessments of potentially hazardous turbines and conditions would need to be made regularly and then mitigation measures adjusted accordingly, one set for old-generation turbines and another set for repowered turbines.

It appears that the PEIR will address the impacts of current operations relative to the existing CUPs. Then, once the HCP/NCCP is completed, the county will amend as necessary the existing CUPs to include conservation, avoidance, and minimization measures. The description appears to imply that the HCP/NCCP avoidance and minimization measures will be the primary method of mitigating impacts for existing projects. This situation raises two concerns with the SRC:

a) Whether the PEIR would be able to reach significance conclusions pursuant to CEQA prior to the completion of the HCP/NCCP; and,

b) Whether the county is assuming that the HCP/NCCP avoidance and minimization measures will reduce impacts to levels of less-than-significant.

The PEIR should evaluate and calculate impacts related to avian mortality using the information generated from the monitoring program and available on the SRC website. Based on these data, the PEIR should then determine the significance of the impacts pursuant to CEQA guidance. The PEIR should define significance thresholds for each affected species or species group, both on a local and regional level. The analysis should investigate the number of birds or bats of each potentially affected species or species group that can be removed from a population before reaching biological significance pursuant to CEQA guidance. If impacts are determined to be significant, mitigation measures can then be applied to minimize the impact, which should include turbine removal, in an effort to reach a level of less than significant. The alternative is for the County to issue overriding considerations.

The SRC is further concerned over how the PEIR will address golden eagle mortality relative to its status as a Fully Protected (i.e., no take) species in California. Golden eagle mortality will occur and cannot be fully eliminated under the proposed project descriptions, and as a Fully Protected species, there is no provision for take under state law.

The SRC recommends that avian and bat mortality be analyzed both on an APWRA-wide basis and on a project by project basis. This approach would prevent individual companies who are not repowering from not doing their share to reduce fatalities caused by their projects. The impact assessment should address avian and bat mortality for each project component individually; that is, (1) existing CUPs, (2) Summit Repowering, and (3) NextEra Repowering.

MITIGATION ALTERNATIVES

Repowering

Repowered turbines need to be carefully sited to minimize collision hazards to birds and bats, and to minimize grading impacts caused by construction of access roads and turbine laydown areas. Siting should be guided by (1) patterns of fatality rates among APWRA wind turbines, (2) flight patterns of species of greatest concern (e.g., golden eagle, red-tailed hawk, American kestrel, burrowing owl), and (3) the spatial distribution of burrowing owl burrows. Siting methods were recently developed,[3] and they were advanced further, specifically for Contra Costa County repowering projects.[4]

Post-construction fatality and utilization monitoring lasting three years should be required. The effects of repowering on fatality rates and habitat displacement (avoidance effects) need to be quantified to inform future permit renewals and mitigation planning.

Additional studies may need to be conducted to assess the impacts to bats – such as studies on seasonal and spatial distributions, and migratory and other movement patterns.

It would be important to consider the difficultly in evaluating, avoiding, and mitigating for impacts to the state and federally listed California tiger salamander. These animals occur throughout the APWRA and can be found not only in ground squirrel burrows, but also pocket gopher burrows, crevices, or under rocks. Detecting presence when they are underground is difficult and time consuming. California red-legged frogs similarly aestivate in mammal burrows away from water, and these are difficult to detect in surveys. A section 7 consultation with USFWS would be needed before any decommissioning takes place.

Continued operation of old turbines

The SRC recommended removal of turbines they ranked 7 to 10 on a collision hazard scale. They also recommended the continuation of a four-month winter shutdown. Over the past four years, the SRC made many other recommendations, most of which were not followed in a timely

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[3] Smallwood, K. S., and L. Neher. 2009. Map-Based Repowering of the Altamont Pass Wind Resource Area Based on Burrowing Owl Burrows, Raptor Flights, and Collisions with Wind Turbines. Final Report to the California Energy Commission, Public Interest Energy Research – Environmental Area, Contract No. CEC-500-2009-065. Sacramento, California. 63 pp. http://www.energy.ca.gov/2009publications/CEC-500-2009-065/CEC-500-2009-065.PDF

Smallwood, K. S., L. Neher, and D. A. Bell. 2009. Map-based repowering and reorganization of a wind resource area to minimize burrowing owl and other bird fatalities. Energies 2009(2):915-943. http://www.mdpi.com/1996-1073/2/4/915

[4] Smallwood, K. S. and L. Neher. 2010. Siting Repowered Wind Turbines to Minimize Raptor Collisions at the Tres Vaqueros Wind Project, Contra Costa County, California. Draft Report to the East Bay Regional Park District, Oakland, California.

fashion or not followed at all.[5] For example, the SRC repeatedly recommended that the CUP requirements be met, as fatality reductions could not be realized without mitigation actions being taken. The SRC also recommended that all unproductive turbines and vacant towers be removed. The wind companies should better inform the SRC of their actions, including which turbines were removed or relocated, and when the actions happened. The SRC recommended compliance monitoring by a trusted third party or by the SRC. The SRC requested power output data from the companies so that hypotheses related to patterns of collisions, leading to improved removal and relocation recommendations could be tested. The SRC recommended a focused burrowing owl behavior study in order to learn why burrowing owls are being killed at such high rates near wind turbines. The SRC also recommended a background mortality study, searcher detection trials, more aggressive behavior monitoring of flying birds, and timely processing of bird utilization monitoring. If the continued operations of old-generation turbines are to be considered in one or more PEIR alternatives, then the SRC's recommendations should be fully implemented.

All old-generation turbines that are allowed to continue operating should be monitored for fatalities until the turbines are removed.

Compensatory mitigation

No matter which model of horizontal-axis wind turbines operate in the APWRA, birds and bats will continue to be killed by moving turbine blades. Even reducing raptor mortality 80-85% due to repowering, the remaining fatality rates should be considered significant. There is no fatality-reducing or fatality-minimizing mitigation measure that will reduce the impacts below a threshold of significance under CEQA. Therefore, compensatory mitigation will be necessary.

Compensatory mitigation should be based on a nexus between a project's adverse impacts and the benefits gained through the mitigation. Although some consideration should be devoted to finding this nexus, in reality it will be very difficult to arrive at such a nexus due to the nature and magnitudes of the impacts. The impacts will continue for the life of the project(s), and they will affect some species that lack distinct taxonomic units or "populations" within the APWRA. Most of the species affected are migratory, using the APWRA briefly or for only part of the year. It may be impossible to rely on habitat restoration or habitat protections as a means to replace the annual numbers of birds and bats killed by wind turbines in the APWRA. Therefore, a simpler, arbitrary compensatory mitigation ratio may be needed. Furthermore, a compensatory mitigation ratio may still fail to lessen impacts to *less than significant* for the simple reason that many of the birds being killed in large numbers cannot be taken under the Migratory Bird Treaty Act.

Setting aside non-development zones within the Altamont would also be an option for compensatory mitigation. Using existing bird use data to design possible movement corridors through the Altamont would be useful.

[5] Smallwood, S. 2010. Summary of Alameda County SRC Recommendations and Concerns and Subsequent Actions. http://www.altamontsrc.org/alt_doc/p147_smallwood_summary_of_src_recommendations_and_concerns_1_11_10.pdf

Decommissioning and reclamation of existing wind farms

The NOP states that as repowering proceeds, power poles and electrical overhead lines will be removed where they are no longer needed. The SRC recommends that all the power poles and overhead lines are removed; they should be replaced by undergrounded lines. The power poles and overhead lines kill numerous birds, although estimates of annual fatality rates caused by electrocution and line strikes have yet to be made.

If overhead lines and power poles must be used, then the SRC recommends they be limited to locations where they will not pose a substantial hazard to raptors. The SRC has noticed trends in American kestrel fatalities at wind turbines corresponding with nearness to power poles. The SRC believes American kestrels routinely perch on power poles, and that adjacency of power poles to wind turbines on steep slopes, in ridge saddles, and in notches or breaks in slope has been associated with disproportionate numbers of American kestrel fatalities. The SRC recommends maintaining as much distance as possible between power poles and intervening line spans from wind turbines, and especially from wind turbines in hazardous settings. The SRC also notes that its hazard ratings of wind turbines documented where many dangerous settings occur in the APWRA, but not all dangerous settings were documented.

The NOP and the PEIR should define what is meant by the phrase 'no longer operable.' It seems like the county might consider requiring some specific level of turbine operation per turbine and per project. Can 90 percent of the turbines remain non-functioning as long as 10% are operating? The SRC suggests that perhaps decommissioning should occur on a turbine basis rather than waiting for the 'project' to become non-operable.

The NOP made no mention of monitoring the reclamation efforts to verify that restoration has been successful. This will ensure that cables are sufficiently buried, vegetation has been established, and erosion has been controlled. Monitoring would also provide information on other needed restorations and identify any remedial actions.

Biological surveys would also need to be conducted before any reclamation activities, so that the work can be tailored to the specific needs of the site. For example, re-contouring the land or removing foundations could impact sensitive species that occupy underground burrows such as California tiger salamander or burrowing owls.

MITIGATION MONITORING

The PEIR should detail a credible mitigation monitoring plan as required under CEQA. The monitoring conducted so far – termed compliance monitoring as part of the Alameda County Avian Wildlife Protection Program – has been grossly inadequate.[6] Actions allegedly taken by the wind companies were often in dispute, and the timing and magnitude of the actions were always vague and confusing. A trusted third party is needed to perform this monitoring.

[6] Smallwood, S. 2010. Progress of Avian Wildlife Protection Program & Schedule. http://www.altamontsrc.org/alt_doc/p148_smallwood_progress_of_avian_wildlife_protection_program_1_11_10.pdf